

Amendments to the Claims:

This following listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (currently amended) A method for ~~transmitting~~ inserting a serial video data stream ~~by employing~~ into a network transport digital signal formatted in accordance with a hierarchical digital transmission standard, said method comprising:

segmenting said serial video data stream into a sequence of horizontal scan lines;
extracting bits from said sequence of horizontal scan lines to form data payloads;
computing a payload header of N bytes for each data payload, where N is a provisionable value, including a two byte time stamp counter value and an associated two byte CRC value;

~~encapsulating said horizontal scan lines within GFP packets~~ forming GFP-T frames with said data payloads and corresponding payload headers; and

mapping said ~~GFP packets~~ GFP-T frames into ~~a~~ said network transport digital signal in accordance with said hierarchical digital transmission standard.

2.-4. (canceled)

5. (original) The method of claim 1 wherein said serial video data stream comprises an ANSI/SMPTE 259M-1997 serial video data stream.

6. (currently amended) The method of claim 1 wherein mapping comprises:
mapping said ~~GFP packets~~ GFP-T frames into a VC-3-6v virtual concatenation.

7. (currently amended) The method of claim 1 wherein mapping comprises:
mapping said ~~GFP packets~~ GFP-T frames into a VT3-6v virtual concatenation.

8. (currently amended) A method for ~~receiving~~ extracting a serial video data stream ~~by employing~~ from a network transport digital signal formatted in accordance with a hierarchical digital transmission standard, said method comprising:

demapping ~~GFP~~ GFP-T frames from a signal formatted in accordance with said hierarchical digital transmission standard;

deencapsulating said GFP-T frames to obtain payload headers and data payloads therein;
differentiating said data payloads from said payload headers; and
~~deencapsulating said GFP frames to extract~~ forming horizontal scan lines of said serial video data stream from said data payloads.

9. (currently amended) The method of claim 8 further comprising:
buffering said horizontal scan lines in a buffer; and
recovering clock timing of said serial video data stream based on said horizontal scan lines from time-stamp counter values in said payload headers.

10. (original) The method of claim 9 wherein recovering clock timing comprises:
reading data out of said buffer in accordance with a locally generated clock; and
varying frequency of said locally generated clock in accordance with occupancy of said buffer.

11.-13. (canceled)

14. (original) The method of claim 8 wherein said serial video data stream comprises an ANSI/SMPTE 259M-1997 serial video data stream.

15. (currently amended) The method of claim 8 wherein demapping comprises:
demapping said **~~GFP-packets~~** GFP-T frames from a VC-3-6v virtual concatenation.

16. (original) The method of claim 8 wherein demapping comprises:
demapping said **~~GFP-packets~~** GFP-T frames from a VT3-6v virtual concatenation.

17. (currently amended) Apparatus for **~~transmitting~~** inserting a serial video data stream **~~by employing~~** into a network digital signal formatted according to a hierarchical digital transmission standard, said apparatus comprising:

a scan line delineation block that segments said serial video data stream into a sequence of horizontal scan lines, extracts bits from the sequence of horizontal scan lines to form data payloads, and computes a payload header of N bytes for each data payload, where N is a provisionable value, said payload header including a time stamp counter value and an associated CRC value;

a mapper that ~~encapsulates said horizontal scan lines within GFP packets~~ formats said data payloads and corresponding payload headers into GFP-T frames and maps said ~~GFP packets~~ GFP-T frames into a digital signal in accordance with said hierarchical digital transmission standard.

18.-20. (canceled)

21. (currently amended) The apparatus of claim 17 wherein said mapper maps said ~~GFP packets~~ GFP-T frames into a VC-3-6v virtual concatenation.

22. (currently amended) The apparatus of claim 17 wherein said mapper maps ~~aid GFP packets~~ said GFP-T frames into a VT3-6v virtual concatenation.

23. (original) The apparatus of claim 17 wherein said serial video data stream comprises an ANSI/SMPTE 259M-1997 serial video data stream.

24. (currently amended) Apparatus for ~~receiving~~ extracting a serial video data stream ~~via~~ from a network digital signal formatted according to a hierarchical digital transmission standard, said ~~method~~ apparatus comprising:

a demapper that demaps ~~GFP~~ GFP-T frames from ~~a~~ said network digital signal formatted according to ~~in accordance with~~ said hierarchical digital transmission standard, ~~and~~ deencapsulates said ~~GFP~~ GFP-T frames to obtain data payloads and payload headers therein, differentiates said data payloads from said payload headers, and forms ~~to extract~~ horizontal scan lines of said serial video data stream from said data payloads; and

a clock recovery system that recovers timing of said serial video stream.

25. (currently amended) The apparatus of claim 24 further comprising:

a buffer that stores said extracted horizontal scan lines, said serial video data stream being clocked out of said buffer in accordance with said ~~recovered~~ timing recovered from time-stamp counter values in said payload headers.

26. (original) The apparatus of claim 25 wherein said clock recovery system comprises:

a buffer occupancy measurement block that measures occupancy of said buffer, said timing being adjusted in accordance with said measured occupancy.

27.-29. (canceled)

30. (original) The apparatus of claim 24 wherein said serial video data stream comprises an ANSI/SMPTE 259M-1997 serial video data stream.

31. (original) The apparatus of claim 24 wherein said demapper demaps said GFP packets from a VC-3-6v virtual concatenation.

32. (original) The apparatus of claim 24 wherein said demapper demaps said GFP packets from a VT3-6v virtual concatenation.

33.-37. (canceled)

38. (currently amended) Apparatus for ~~transmitting~~ inserting a serial video data stream ~~by employing~~ into a network transport digital signal formatted according to a hierarchical digital transmission standard, said apparatus comprising:

means for segmenting said serial video data stream into a sequence of horizontal scan lines;

means for extracting bits from said sequence of horizontal scan lines to form data payloads;

means for computing a payload header of N bytes for each data payload, where N is a provisionable value, including a two byte time stamp counter value and an associated two byte CRC value;

means for ~~encapsulating said horizontal scan lines within GFP packets~~ forming GFP-T frames with said data payloads and corresponding payload headers; and

means for mapping said ~~GFP packets~~ GFP-T frames into a network transport digital signal in accordance with said hierarchical digital transmission standard.

39. (currently amended) Apparatus for ~~receiving~~ extracting a serial video data stream ~~by employing~~ from a digital signal formatted in accordance with a hierarchical digital transmission standard, said apparatus comprising:

means for demapping ~~GFP~~ GFP-T frames from a signal formatted in accordance with said hierarchical digital transmission standard;

means for deencapsulating said GFP-T frames to obtain payload headers and data payloads therein;

means for differentiating said data payloads from said payload headers; and

means for ~~deencapsulating said GFP frames to extract~~ forming horizontal scan lines of said serial video data stream from said data payloads.

40. (new) The method of claim 1 wherein said extracting bits step comprises removing End of Active Video (EAV) and Start of Active Video (SAV) bytes from said sequence of horizontal scan lines.

41. (new) The method of claim 40 wherein said payload header is 4 bytes in length and includes said time stamp counter value and associated CRC value.

42. (new) The method of claim 8 wherein said forming step comprises inserting End of Active Video (EAV) and Start of Active Video (SAV) bytes into said data payloads to form said sequence of horizontal scan lines.

43. (new) The method of claim 9 wherein said payload headers are 4 bytes in length and include said time stamp counter values.

44. (new) The apparatus of claim 17 wherein said scan line delineation block further removes End of Active Video (EAV) and Start of Active Video (SAV) bytes from said sequence of horizontal scan lines.

45. (new) The apparatus of claim 44 wherein said payload header is 4 bytes in length and includes said time stamp counter value and associated CRC value.

46. (new) The apparatus of claim 24 wherein said demapper further inserts End of Active Video (EAV) and Start of Active Video (SAV) bytes into said data payloads to form said sequence of horizontal scan lines.

47. (new) The apparatus of claim 25 wherein said payload headers are 4 bytes in length and include said time stamp counter values.